AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Withdrawn) A method for screening nucleation tendency of a molecule in a fluid or gas comprising

    i. levitating at least one droplet of the fluid or gas in a levitator,

    ii. delivering at least one substance to the levitated droplet with a dispenser for delivering a substance,

    iii. detecting the nucleation tendency, and

    iv. scoring the nucleation tendency.

2. (Withdrawn) The method according to claim 1, wherein the nucleation tendency is detected manually by visual surveillance.

3. (Withdrawn) The method according to claim 1, wherein the nucleation tendency is detected by any of the means selected from the group consisting of Raman spectroscopy, multi-angle light scattering in combination with Raman spectroscopy, nephelometry, and an illuminator source, to obtain a quantitative measurement of turbidity, precipitate and/or aggregate formation in the at least one droplet.

4. (Withdrawn) The method according to claim 1, wherein the droplet is levitated using a levitator selected from the group consisting of an acoustic, electrostatic, air flow, magnetic levitator and any hybrids thereof.

5. (Withdrawn) The method according to claim 1, wherein the dispenser is a piezoelectric flow-through dispenser.

6. (Withdrawn) The method according to claim 1, wherein the substance delivered to the droplet is a protein, a membrane protein, a peptide, an enzyme, a receptor, a drug compound, nucleic acid, a macromolecule, macromolecular assembly or complexes thereof.

7. (Withdrawn) The method according to claim 1, wherein the substance delivered to the droplet is a substance influencing the nucleation conditions.

8. (Withdrawn) The method according to claim 1, wherein the droplet is in the range of 1 fl to 100 μl.

9. (Withdrawn) The method according to claim 1, wherein the nucleation tendency is detected within the range of 10 milliseconds to 10 hours.

10. (Withdrawn) The method according to claim 9, wherein the nucleation tendency is detected after 10 milliseconds to 5 hours.

11. (Withdrawn) The method according to claim 9, wherein the nucleation tendency is detected after 10 milliseconds to 30 minutes.

12. (Withdrawn) A system for screening nucleation tendency comprising

i. at least one levitator for positioning at least one droplet,

ii. at least one dispenser for delivering at least one substance to the positioned droplet, and

iii. one or more means for detecting nucleation tendency in the at least one levitated droplet.

13. (Withdrawn) The system according to claim 12, wherein the levitator is selected from the group consisting of an acoustic, electrostatic, air flow, magnetic levitator and any hybrids thereof.

14. (Withdrawn) The system according to claim 12, wherein the dispenser is a piezoelectric dispenser.

15. (Withdrawn) The system according to claim 12, wherein the nucleation tendency is detected manually by visual surveillance.

16. (Withdrawn) The system according to claim 12, wherein the nucleation tendency is detected by any of the means selected from the group consisting of Raman spectroscopy, multi-angle light scattering in combination with Raman spectroscopy, nephelometry, and an illuminator source, to obtain a quantitative measurement of turbidity, precipitate and/or aggregate formation in the at least one droplet.

17. (Withdrawn) The system according to claim 12, wherein the at least one levitated droplet is in the range of 1 fl to 100 μl.

18. (Withdrawn) The system according to claim 12, wherein the at least one substance delivered to the at least one droplet by the at least one dispenser is a protein, a membrane protein, a peptide, an enzyme, a receptor, a drug compound, nucleic acid, a macromolecule, macromolecular assembly or complexes thereof.

19. (Withdrawn) The system according to claim 12, wherein the at least one substance delivered to the at least one droplet by the at least one dispenser is a substance influencing nucleation tendency.

20. (Withdrawn) The system according to claim 16, wherein the illumination source is arranged so that the at least one levitated droplet is positioned around the illumination source in a way that each suspended droplet can be illuminated by rotating light.

21. (Previously presented) A method for screening crystallization conditions or amorphous stage conditions for a molecule, comprising using a system according to claim 12 to screen the crystallization conditions or amorphous stage conditions for the molecule.

22. (Currently Amended) A method for screening ~~crystallization conditions or amorphous stage conditions for a molecule~~ nucleation tendency of a molecule in a fluid, comprising:

[i.] (a) levitating at least one droplet of [a fluid or gas in a] said fluid in an ultrasound acoustic levitator,

[ii.] (b) delivering at least one substance [comprising the molecule] to [the] said levitating droplet with a dispenser for delivering [the] said substance,

[iii.] (c) detecting the nucleation tendency by multi-angle light scattering in combination with Raman spectroscopy to obtain a quantitative measurement of turbidity, precipitate, and/or aggregate formation in said at least one droplet, while the concentrations of substances in said levitated droplet is gradually increased over time by means of either droplet evaporation or addition of precipitants and utilizing the vibration-induced streaming caused by ultrasound to further the precipitation in said droplet, and

[iv.] (d) scoring the nucleation tendency.

23. (Withdrawn) The method according to claim 4, wherein the levitator is an acoustic-electrostatic hybrid levitator.

24. (Withdrawn) The method according to claim 6, wherein the peptide is an oligopeptide or a polypeptide.

25. (Withdrawn) The method according to claim 6, wherein the nucleic acid is DNA or RNA, an oligonucleotide, or a polynucleotide.

26. (Withdrawn) The system according to claim 13, wherein the levitator is an acoustic-electrostatic hybrid levitator.

27. (Withdrawn) The method according to claim 18, wherein the peptide is an oligopeptide or a polypeptide.

28. (Withdrawn) The method according to claim 18, wherein the nucleic acid is DNA or RNA, an oligonucleotide, or a polynucleotide.

29. (Previously presented) The method according to claim 21, wherein the molecule is a protein, a membrane protein, a peptide, an enzyme, a receptor, a drug compound, nucleic acid, a macromolecule, macromolecular assembly or complexes thereof.

30. (Previously presented) The method according to claim 29, wherein the peptide is an oligopeptide or a polypeptide.

31. (Previously presented) The method according to claim 29, wherein the nucleic acid is DNA or RNA, an oligonucleotide, or a polynucleotide.

32. (Previously presented) The method according to claim 22, wherein the molecule is a protein, a membrane protein, a peptide, an enzyme, a receptor, a drug compound, nucleic acid, a macromolecular, macromolecular assembly or complexes thereof.

33. (Previously presented) The method according to claim 32, wherein the peptide is an oligopeptide or a polypeptide.

34. (Previously presented) The method according to claim 32, wherein the nucleic acid is DNA or RNA, an oligonucleotide, or a polynucleotide.

35. (Currently Amended) A system for screening crystallization conditions or amorphous stage conditions of a molecule, comprising:

[i.] (a) at least one levitator for positioning at least one droplet,

[ii.] (b) at least one dispenser for delivering at least one substance to the positioned droplet, and

[iii.] (c) one or more means for detecting nucleation tendency in the at least one levitated droplet.

36. (Previously Presented) The system according to claim 35, wherein the levitator is selected from the group consisting of an acoustic, electrostatic, air flow, magnetic levitator, and any hybrids thereof.

37. (Previously Presented) The system according to claim 35, wherein the dispenser is a piezoelectric dispenser.

38. (Withdrawn) The system according to claim 35, wherein the nucleation tendency is detected manually by visual surveillance.

39. (Previously Presented) The system according to claim 35, wherein the nucleation tendency is detected by any of the means selected from the group consisting of Raman spectroscopy, multi-angle light scattering in combination with Raman spectroscopy, nephelometry, and an illuminator source, to obtain a quantitative measurement of turbidity, precipitate and/or aggregate formation in the at least one droplet.

40. (Previously Presented) The system according to claim 35, wherein the at least one levitated droplet is in the range of 1 fl to 100 μl.

41. (Withdrawn) The system according to claim 35, wherein the at least one substance delivered to the at least one droplet by the at least one dispenser is a protein, a membrane protein, a peptide, an enzyme, a receptor, a drug compound, nucleic acid, a macromolecule, macromolecular assembly or complexes thereof.

42. (Previously Presented) The system according to claim 35, wherein the at least one substance delivered to the at least one droplet by the at least one dispenser is a substance influencing nucleation tendency.

43. (Previously Presented) The system according to claim 39, wherein the illumination source is arranged so that the at least one levitated droplet is positioned around the illumination source in a way that each suspended droplet can be illuminated by rotating light.

44. (Previously Presented) The system according to claim 35, wherein the molecule is a protein, a membrane protein, a peptide, an enzyme, a receptor, a drug compound, nucleic acid, a macromolecule, macromolecular assembly or complexes thereof.

45. (Previously Presented) The system according to claim 44, wherein the peptide is an oligopeptide or a polypeptide.

46. (Previously Presented) The system according to claim 44, wherein the nucleic acid is DNA or RNA, an oligonucleotide, or a polynucleotide.